

REMARKS

Claims 1-46 are pending.

The Examiner rejected claims 15-21 under 35 U.S.C. § 102(e) in view of Little (U.S. Application No. 2002/0091990) and claims 1-14 and 22-46 under 35 U.S.C. § 103(a) in view of Little, further in view of DeStefano (U.S. Patent No. 6,275,227). Applicant respectfully disagrees.

Applicant's technology provides multiple levels of help to a developer writing a program that is represented as an intentional tree. An intentional tree contains program elements organized as a series of nodes in a hierarchy. Figure 1 illustrates such a tree for a function Add(a, b) which adds two numbers together and returns the sum.

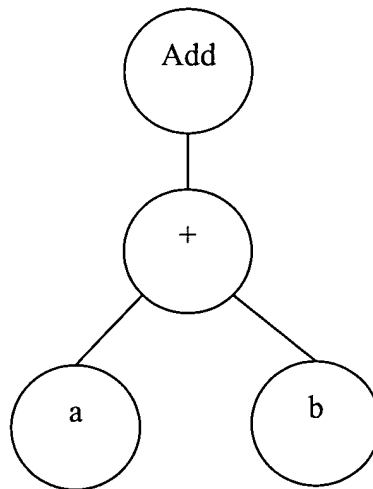


Figure 1

Each node in an intentional tree has a type. For example, the node "+" in Figure 1 has a type "operator" while the node "a" has an operator "parameter." A separate hierarchy represents help information for each node type at increasing levels of abstraction. For example, Figure 2 illustrates one possible hierarchy for a node of type "operator +."

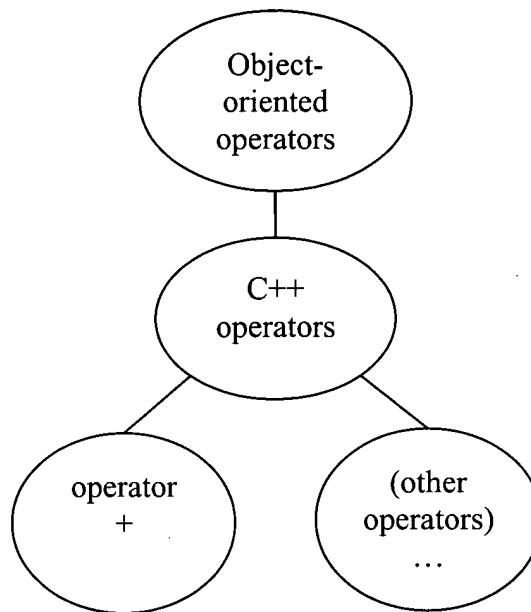


Figure 2

A user selecting help for "+" in Figure 1 would be presented with help on each of the topics in the tree in Figure 2. The user might want specific help on the C++ language operator "+" or more general help on C++ operators. Perhaps the user did not really intend to perform addition, but instead was looking for a bitwise AND operation, and this kind of help would allow the user to find the C++ operator "&" which performs a bitwise AND. Applicant's technology makes this possible.

Little describes a system for integrating application design using Unified Modeling Language tools with application development. The system in Little displays a class hierarchy showing classes that have been defined for a project. While the class hierarchy in Little does show a hierarchy of program elements, Little does not show a hierarchy of program element types. A program element type defines the type of object that a particular program element is and is a separate entity from the program element itself. For example, a class CCat is a program element of type "class." The class CCat may inherit from another program element, CAnimal, which is also of type "class." In contrast,

Applicant's technology might maintain a tree with the program element type "C++ class", with a parent of type "C++ custom types" with a parent of type "object-oriented types."

DeStefano describes a user interface for an application that can be presented at various levels of detail. For example, a dialog box in an application might ask the user to fill in a user name and password to log on to a system, and then click OK. In one version of the user interface for an expert user, the system in DeStefano might simply present two boxes for the user to enter a user name and password and an OK button. In another version for a novice user, the user interface might contain the same elements with additional text next to them describing examples of what should be entered in each box and what happens when the button is clicked. The Examiner cites DeStefano as teaching multiple levels of help, however, DeStefano does not teach a hierarchy of program element types and the various levels presented by DeStefano are different views of the same information, not information about different program element types related to a selected program element type. In contrast, Applicant's technology presents a hierarchy of program element types that are related to a selected program element's type such that a user can easily learn about related topics.

Each of Applicant's independent claims recites these differences not contained in either Little or DeStefano. Claim 1 recites "providing a hierarchy of program element types" and "identifying ancestor program element types of the selected program element" and "displaying to the user help information associated with the selected ancestor program element type." Claim 9 recites "providing a specification of program element types" and "identifying a derivation of program element types for the selected program element" and "displaying to the user help information associated with the selected program element type." Claim 15 recites "providing a hierarchy of schemas defining valid computer programs, each schema specifying program element types at different levels of abstraction" and "identifying a derivation of program element types for a program element of the provided computer program from the provided hierarchy of schemas" and "displaying an indication of program element types in the identified derivation." Claim 22

recites "a data structure storing a hierarchy of schemas defining computer programs, each schema specifying program element types of a computer program at different levels of abstraction" and "a component that identifies a derivation of program element types for a program element of the computer program from the stored hierarchy of schemas" and "a component that displays information associated with a program element type selected from the displayed indication of program element types." Claim 28 recites "the program element types being defined by a hierarchy of schemas specifying program element types at different levels of abstraction" and "identifying a derivation of program element types for a program element of the provided computer program from the hierarchy of schemas" and "displaying information associated with a program element type selected from the displayed indication of program element types." Claim 33 recites "specifying a programmatic relationship for program elements of the program tree" and "identifying a derivation for a program element based on the specified programmatic relationship" and "displaying information associated with the identified derivation." Claim 42 recites "providing a hierarchical programmatic relationship for program elements of the program tree" and "identifying a derivation of the provided hierarchical programmatic relationship for the identified program element" and "retrieving help information associated with the selected programmatic relationship." Therefore, Applicant's claims each contain elements not found in either Little or DeStefano. Accordingly, Applicant respectfully requests that these rejections be withdrawn.

In view of the above amendment, applicant believes the pending application is in condition for allowance and requests reconsideration.

The Commissioner is hereby authorized to charge shortages or credit overpayment to our Deposit Account No. 50-0665, under Order No. 408068004US from which the undersigned is authorized to draw.

Dated: August 25, 2005

Respectfully submitted,

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